

APPLICANT(S): SHACHOR, Gal
SERIAL NO.: 10/697,183
FILED: October 30, 2003
Page 2

AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer claims indicated as cancelled. The following Listing of Claims is intended to replace all prior versions and/or listings of claims in the application:

LISTING OF CLAIMS

1. **(Currently Amended)** A method of managing a storage, wherein the storage includes a faster access part and a slower access part, the method comprising:

using a Digital Image Communications in Medicine (DICOM) communications protocol to query obtaining information from a Digital Image Communications in Medicine (DICOM) a DICOM modality worklist for information regarding at least one task scheduled to be performed by at least one modality;

determining, based on said information and at least one predetermined rule, at least one type of data likely to be accessed in connection with said at least one task; and

using said DICOM communications protocol to communicate directly with said storage for prefetching at least some data of said type from the slower access part to the faster access part of said storage.

2. **(Previously Presented)** The method of claim 1, wherein obtaining said information includes: examining a task description of said at least one task, said task description included in said DICOM modality worklist.

3. **(Previously Presented)** The method of claim 1, wherein obtaining said information includes: examining information about said at least one modality, said information about said at least one modality included in said DICOM modality worklist.

4. **(Previously Presented)** The method of claim 1, wherein the at least one predetermined rule is tailored to at least one specific information consumer.

5. **(Previously Presented)** The method of claim 1, wherein prefetching includes: transferring data from the slower access part of the storage to the faster access part of the storage.

APPLICANT(S): SHACHOR, Gal
SERIAL NO.: 10/697,183
FILED: October 30, 2003
Page 3

6. **(Previously Presented)** The method of claim 1, wherein prefetching includes: copying data from the slower access part of the storage to the faster access part of the storage.

7. **(Previously Presented)** The method of claim 1, wherein said at least one type of data comprises reference data, and wherein prefetching includes: ensuring that reference data which is deemed likely to be accessed is available in the faster access part of the storage.

8. **(Previously Presented)** The method of claim 1, wherein said at least one type of data comprises historical data, and wherein prefetching includes: ensuring that historical data which is deemed likely to be accessed is available in the faster access part of the storage.

9. **(Previously Presented)** The method of claim 8, wherein said historical data is about a specific object on which said task is to be performed.

10. **(Previously Presented)** The method of claim 9, wherein said object is a body part of a patient.

11. **(Previously Presented)** The method of claim 1, wherein said modality is an image acquisition machine.

12. **(Cancelled)**

13. **(Currently Amended)** A system for storage management, the system comprising:

at least one modality configured to perform at least one task in accordance with a scheduling by at least one Digital Image Communications in Medicine (DICOM) modality worklist;

a storage configured to store data, including a faster access part and a slower access part; and

a prefetcher configured to obtain information from said at least one DICOM modality worklist regarding said at least one task, to determine, based on said information and at least one predetermined rule, at least one type of data likely to be accessed in connection with said at least one task, and to prefetch at least some data of said type from said slower access part to said faster access part of said storage,

wherein said at least one modality, said storage, and said prefetcher are configured to communicate directly one with another using a DICOM communications protocol.

APPLICANT(S): SHACHOR, Gal
SERIAL NO.: 10/697,183
FILED: October 30, 2003
Page 4

14. (**Previously Presented**) The system of claim 13, further comprising:
a hospital information system (HIS) or radiology information system (RIS)
configured to generate said at least one worklist.

15. (**Original**) The system of claim 13, further comprising:
at least one information consumer configured to access data stored in said
storage.

16. (**Cancelled**)

17. (**Previously Presented**) The system of claim 14, wherein said HIS or RIS and said
prefetcher are configured to communicate in accordance with the Digital Image
Communications in Medicine (DICOM) standard.

18. (**Previously Presented**) The system of claim 13, wherein said prefetcher is also
configured to transfer or copy from said slower access part of said storage to said faster
access part of said storage at least some data which is available only in said slower access
part and which is deemed likely to be accessed in connection to said at least one task.

19. (**Previously Presented**) The system of claim 13, wherein at least one of said modalities is
an image acquisition machine.

20. (**Previously Presented**) The system of claim 19, further comprising:
a hospital information system or radiology information system configured to
generate said at least one DICOM modality worklist.

21. (**Currently Amended**) A system for prefetching, the system comprising:
a worklist examiner configured to examine a Digital Image Communications
in Medicine DICOM modality worklist and determine at least one type of data likely
to be accessed, said at least one type of data being related to a task to be performed
by a modality scheduled by said DICOM modality worklist;
a cross referencer configured to compare said at least one type of data with
data stored in a storage for an entity identified for said task, said storage including a
faster access part and a slower access part; and
a retriever configured to transfer or copy to a faster access part of said storage
data stored for said identified entity which is of at least one of said types and is

APPLICANT(S): SHACHOR, Gal
SERIAL NO.: 10/697,183
FILED: October 30, 2003
Page 5

available only in a slower access part of a ~~said storage to a faster access part of said storage,~~

wherein said storage and said retriever are configured to communicate directly one with another using a DICOM communications protocol.

22. **(Previously Presented)** The system of claim 21, further comprising:

a rules storage configured to store at least one rule to allow said worklist examiner to determine said at least one type of data likely to be accessed.

23. **(Original)** The system of claim 21, further comprising:

an internal database configured to save data from said worklist about said at least one task.

24. **(Cancelled)**

25. **(Currently Amended)** A computer program product comprising a computer useable medium having computer readable program code embodied therein for managing a storage, wherein the storage includes a faster access part and a slower access part, the computer program product comprising:

computer readable program code for causing the computer to ~~obtain information from query~~ a Digital Image Communications in Medicine (DICOM) modality worklist for information regarding at least one task scheduled to be performed by at least one modality, wherein obtaining said information is performed using a DICOM communications protocol;

computer readable program code for causing the computer to determine, based on said information and at least one predetermined rule, at least one type of data likely to be accessed in connection with said at least one task; and

computer readable program code for causing the computer to ~~prefetch communicate directly with said storage using said DICOM communications protocol for prefetching~~ at least some data of said type from the slower access part to the faster access part of said storage.

26–32. **(Cancelled)**

33. **(Currently Amended)** A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform a method of

APPLICANT(S): SHACHOR, Gal
SERIAL NO.: 10/697,183
FILED: October 30, 2003
Page 6

managing a storage, wherein the storage includes a faster access part and a slower access part, the method comprising:

using a Digital Image Communications in Medicine (DICOM) communications protocol to query obtaining information from a Digital Image Communications in Medicine (DICOM) a DICOM modality worklist for information regarding at least one task scheduled to be performed by at least one modality;

determining, based on said information and at least one predetermined rule, at least one type of data likely to be accessed in connection with said at least one task; and

using said DICOM communications protocol to communicate directly with said storage for prefetching at least some data of said type from the slower access part to the faster access part of said storage.

34. (Cancelled)